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## **SU(3) gauge theory with four degenerate fundamental fermions on the lattice**

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LatKMI Collaboration has been studying SU(3) gauge theories with 4, 8, 12 and 16 fundamental fermions by using HISQ action on the lattice. This talk is dedicated to show results of Nf=4 simulations. We first show the  $m_\rho / f_\pi$  ratio, from which we see Nf=4 SU(3) gauge theory is quite similar to the actual QCD. Then, we'll show preliminary results of flavor-singlet scalar bound state and give some discussions.

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